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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,377	02/20/2004	Kazimierz Szczypinski	INF 2129-US	6403

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EXAMINER

TANG, MINH NHUT

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,377

Applicant(s)

SZCZYPINSKI ET AL.

Examiner

Minh N. Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,5,11-13 and 15-17 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1,3,4,6-10 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on February 20, 2004 is considered by the examiner.

Drawings

3. The drawings were received on June 26, 2004. These drawings are approved.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "8" has been used to designate both "delay elements" and "signal path". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the

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description: reference numbers "7" and "9". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

7. Claims 1, 3-4, 6-10 and 14 are objected to because of the following informalities:

a/ in claim 1, "to determine" (line 12), "propagation" (line 13), and "between" (line 13) should be -- determine --, -- propagation --, and -- between --, respectively.

b/ in claim 3, line 5, "propagation", and "between" should be -- propagation --, and between --, respectively.

c/ in claim 4, line 6, "the delay elements" should be -- the first and second delay elements --.

d/ in claims 6 and 7, all in line 2, "can be" should be -- are --.

e/ in claim 8, line 4, "singal" should be -- signal --. Furthermore, since claim 10 which indirectly depends upon claim 8 recited "the measured first and second delay time"; therefore, in claim 8, "a delay time" (line 3), and "the delay time" (line 7) should be -- a first delay time --, and -- the first delay time --, respectively.

f/ in claim 9, line 3, "singal" should be -- signal --. Furthermore, since claim 10 which directly depends upon claim 9 recited "the measured first and second delay time"; therefore, in claim 9, "a delay time" (line 2), and "the delay time" (line 7) should be -- a second delay time --, and -- the second delay time --, respectively. Additionally, a period (.) should be placed at the end of the claim.

g/ in claim 10, since "the second delay element", and "the measured second delay time" refer to "a second delay element", and "measuring a (second) delay time" recited in claim 9; therefore, claims 10 should depend upon claim 9.

h/ in claim 14, since there is insufficient antecedent basis for the limitations "the control signals" (lines 7-8), and "the input/output terminal pairs" (line 13), therefore "the control signals" should be -- control signals --, and a limitation -- arranged between input/output terminal pairs and -- should be inserted between "each" and "constructed" in line 9. Furthermore, "delay elements" (line 9), "to determine delay times" (line 11), "a signal propogation times" (line 12), and "between" (line 12) should be -- test delay elements --, -- determine the delay times --, -- signal propagation times --, and -- between --, respectively.

Appropriate correction is required.

Conclusion

8. This application is in condition for allowance except for the following formal matters: the objections to the drawings and the claims set forth above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

9. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-7 recite, inter alia, an integrated module comprising a first test delay element at a first input/output terminal pair, wherein the first test delay element is constructed in a substantially similar manner to the first delay element; and a test control unit configured to, in a test operation, determine the first delay time by means of a signal propagation time between the two input/output terminals of the first input/output terminal pair.

Claims 8-13 recite, inter alia, a method for setting a temporal position of a signal in a signal path of a circuit of an integrated module to a desired signal position, comprising: in a test operation, measuring a first delay time of a first delay element; and selectively connecting or disconnecting the first delay element to the signal path based on results of measuring the first delay time of the first delay element.

Claims 14-17 recite, inter alia, a dynamic random access memory device, comprising a plurality of test delay elements, each arranged between input/output

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terminal pairs and constructed in a substantially similar manner to one of the delay elements; and a test control unit configured to, in a test operation, determine the delay times of the delay elements by means of signal propagation times between the input/output terminals of the input/output terminal pairs.

The art of record does not disclose the above limitations, nor would it be obvious to modify the art of record so as to include the above limitations.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Takagi et al.	6,356,096	Test Board For Testing A Semiconductor Device Utilizing First And Second Delay Elements In A Signal Transmission Path.
McClure	5,579,326	Method And Apparatus For Programming Signal Timing.
Zasio	4,495,628	CMOS LSI And VLSI Chips Having Internal Delay Testing Capability.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh N. Tang whose telephone number is (571) 272-1971. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (571) 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MINH NHUT TANG
PRIMARY EXAMINER

5/12/05